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Appellants: Michael John Smith et al. Docket No.: 15,668
 Serial No.: 09/679,767 Group: 1772
 Confirmation No.: 1320 Examiner: M. C. Miggins
 Filed: October 5, 2000 Date: April 28, 2005
 For: THIN, SOFT BATH TISSUE HAVING A BULKY FEEL

Appeal Brief Transmittal Letter

Mail Stop Appeal Brief - Patents
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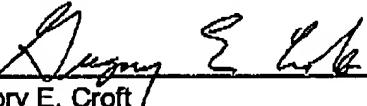
Sir:

Pursuant to 37 C.F.R. 41.37, transmitted herewith is an Appeal Brief pursuant to the Notice of Appeal which was mailed on March 7, 2005.

Please charge the \$500.00 fee (fee code 1402), pursuant to 37 C.F.R. 41.20(b)(2), which is due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

Respectfully submitted,

MICHAEL JOHN SMITH ET AL..

By: 

Gregory E. Croft

Registration No.: 27,542

CERTIFICATE OF TRANSMISSION

I, Judy Garot, hereby certify that on April 28, 2005 this document is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) 872-9306.

Typed or printed name of person signing this certificate:

Judy Garot

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Brief on Appeal to the Board of Patent Appeals and Interferences

Mail Stop Appeal Brief - Patents
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. 41.37 Appellants respectfully submit this Brief in support of their Appeal of the **Final Rejection** of claims 1-33 which was mailed on December 23, 2004.

On March 7, 2005, Appellants, pursuant to 37 C.F.R. 41.31 mailed a timely Notice of Appeal. Thus, the time period for filing this Brief ends on May 7, 2005.

Real Party in Interest

The present Application has been assigned to Kimberly-Clark Worldwide, Inc.

Related Appeals and Interferences

There are no known related appeals and interferences.

Status of the Claims

Claims 1-33 remain in the application with claims 1-33 being finally rejected. Claims 1-11 were originally filed with the application and claims 12-33 were added by Amendment on September 6, 2002.

Status of Amendments Filed Subsequent to Final Rejection

No Amendments After Final Rejection have been filed with respect to the present Application.

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Summary of the Invention For Each Independent Claim**Independent Claim 1**

The invention of Claim 1 is a roll of bath tissue (See specification at page 1, line 26.). The bath tissue comprises a wound continuous tissue basesheet having spaced-apart transverse lines of perforations which define individual tissue sheets for detachment in use (See specification at page 1, lines 26-28.). The tissue basesheet has a geometric mean stretch of 11% or less (See specification at page 2, line 1.), a single sheet caliper of about 0.01 inch or less (See specification at page 2, line 1.) and a Void Volume of about 8.0 grams or greater per gram of tissue (See specification at page 2, line 2.).

Independent Claim 12

The invention of Claim 12 is a roll of bath tissue (See specification at page 1, line 26.). The bath tissue comprises a wound continuous single-ply, throughdried tissue basesheet having spaced-apart transverse lines of perforations which define individual tissue sheets for detachment in use (See specification at page 1, lines 26-28 and page 3, lines 9-11.). The tissue basesheet has a geometric mean stretch of 11% or less (See specification at page 2, line 1.), a single sheet caliper of about 0.01 inch or less (See specification at page 2, line 1.) and a Void Volume of about 8.0 grams or greater per gram of tissue (See specification at page 2, line 2.).

Independent Claim 23

The invention of Claim 23 is a roll of bath tissue (See specification at page 1, line 26.). The bath tissue comprises a wound continuous single-ply, uncreped throughdried tissue basesheet having spaced-apart transverse lines of perforations which define individual tissue sheets for detachment in use (See specification at page 1, lines 26-28 and page 3, lines 9-11.). The tissue basesheet has a geometric mean stretch of 11% or less (See specification at page 2, line 1.), a single sheet caliper of about 0.01 inch or less (See specification at page 2, line 1.) and a Void Volume of about 8.0 grams or greater per gram of tissue (See specification at page 2, line 2.).

Statement of Each Ground of Rejection Presented For Review

Claims 1-33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,904,812 to Salman et al. in view of U.S. 5,494,554 to Edwards et al. and U.S. 5,655,132 to Farrington et al.

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Argument

As stated above, Claims 1-33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,904,812 to Salman et al. in view of U.S. 5,494,554 to Edwards et al. and U.S. 5,655,132 to Farrington et al. Salman et al. teaches a method of post-treating a bath tissue sheet by a combination of calendering and embossing in order to improve the clarity of the resulting embossing pattern in the sheet. A bath tissue product having 500-900 sheets per roll is disclosed. Edwards et al. teaches a method of making softer creped, wet-pressed tissues with a lower tendency to produce lint by improving the tissue formation and creping. Specific examples disclose creped tissue sheets having a Void Volume of from 7 to 11.7. Farrington et al. teaches soft, high bulk uncreped throughdried tissues. The rejection is cumulatively based on three different independent combinations of the teachings of two references and each of those combinations are addressed below.

Specifically, it is first asserted that Salman et al. substantially discloses Appellants' invention, although it is conceded that Salman et al. fails to disclose a basesheet having a Void Volume of about 8 or greater. Edwards et al. teaches tissue sheets having a Void Volume of 8 or greater. It is therefore concluded that it would be obvious to provide the tissue of Salman et al. with a Void Volume of 8 or greater "in order to provide softer wet-pressed tissues with a lesser tendency to produce lint as taught by Edwards et al."

As an initial matter, Appellants take issue with the statement that Salman et al. substantially discloses Appellants' invention. Not only does Salman et al. fail to disclose tissues having a Void Volume of about 8 or greater, Salman et al. also fails to disclose tissues having a geometric mean stretch of about 11% or less and tissues having a single sheet caliper of about 0.01 inch or less. While Salman et al. discloses a starting material having a single sheet caliper of 0.008 inch or greater (col. 6, line 63 – col 7, line 2), embossing will substantially increase single sheet caliper, so that the single sheet caliper of the resulting tissue sheet of Salman et al. would be expected to be well above Appellants' claimed range of about 0.01 inch or less. Consequently Salman et al. fails to disclose a bath tissue sheet having any of the three claimed properties of Appellants' invention.

In addition, it is asserted that Edwards et al. teaches a Void Volume of about 8 or greater "for the purpose of providing softer wet-pressed tissues with a lesser tendency to produce lint." This is incorrect. While Edwards et al. does teach wet-pressed tissues having a Void Volume of 8 or greater, the Void Volume is not the cause of the lint reduction, but instead is a result of more uniform creping. Therefore one of ordinary skill in the art would not seek to provide the tissue sheet of Salman et al. with a Void Volume of 8 or greater for the purpose of reducing lint.

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Further in this regard, the Examiner has pointed out that Edwards et al. discloses making a softer wet-pressed sheet and that higher Void Volume presumably results in greater softness. Therefore there is motivation to provide the tissue sheets of Salman et al. with greater softness by providing them with a higher Void Volume. Whether or not the presumption regarding the relationship between Void Volume and softness is accurate, there is no motivation to provide the tissue sheets of Salman et al. with greater Void Volume because the invention of Salman et al. is directed toward improving the clarity and distinctness of the resulting embossments in the tissue sheet. To the contrary, increasing the Void Volume of the starting material makes it more difficult to provide a distinct embossment. In this regard, note Salman et al. at col. 5, lines 16-26, where it is explained that wet-pressed tissues (such as those disclosed in Edwards et al.) do not benefit greatly by the invention of Salman et al. because they emboss readily. The difficult sheets to emboss are those that are throughdried (and have a relatively high Void Volume). Hence one of ordinary skill in the art would not seek to provide the starting material for the process of Salman et al. with greater Void Volume because it would tend to reduce the effectiveness of the calendering/embossing method of Salman et al.

The second combination of references used as part of the basis for rejection is Salman et al. in view of Farrington et al. It is again asserted that Salman et al. discloses Appellants' invention substantially as claimed, while acknowledging that Salman et al. fails to disclose a tissue sheet having a single sheet caliper of about 0.01 inch or less. It is stated that Farrington et al. discloses a single sheet caliper of 0.01 inch or less and therefore it would be obvious "to have provided a base sheet having a single sheet caliper of about 0.01 inch or less, or 0.0095 inch or less in the base sheet of Salman et al. in order to provide high bulk and low stiffness as taught or suggested by Farrington et al." While Farrington et al. does disclose one example of a tissue sheet having a single sheet caliper of 0.0094 inch (Example 13 in Table 1), it does not follow that providing the tissue sheet of Salman et al. with such a low caliper would "provide high bulk and low stiffness as taught or suggested by Farrington, Jr. et al." Those skilled in the art seeking to increase the bulk of any tissue sheet would do just the opposite since, for a given basis weight, increasing the bulk requires increasing the caliper ("bulk" is "caliper" divided by "basis weight"). The mere fact that Farrington et al. happens to disclose a single example of a tissue sheet within Appellants' claimed caliper range does make it obvious to one of ordinary skill in the art to modify the tissue sheet of Salman et al. to attain that caliper value. In fact, a fair reading of Farrington et al. taken as a whole with regard to caliper values suggests much higher calipers, since the other nineteen examples have caliper values above Appellants' claimed maximum value of 0.0100 inch.

Further in regard to this basis for rejection, it is suggested that "it is well known that low caliper results in low production costs since less plies per sheet are used". Since Farrington et al. teaches that single-ply products have lower manufacturing costs than two-ply products, Farrington provides

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motivation to lower the caliper of the sheet of Salman et al. Appellants do not follow this reasoning. "Caliper" and "plies" are two different things. Lowering the caliper does not necessarily lower manufacturing costs. Lowering the caliper will lower fiber costs, but doing so may increase other costs as needed to make up for the presence of less fiber in the product. In the extreme, lowering the caliper may require producing a two-ply product instead of a single-ply product in order to provide the user with the necessary overall tissue quality. Therefore one of ordinary skill in the art would not seek to provide the tissues of Salman et al. with a caliper even lower than is already specified in Salman et al.

The third combination of references used as part of the basis for rejection is again Salman et al. and Farrington et al. For this combination, it is asserted that Salman et al. and Farrington et al. disclose the claimed invention except for the geometric mean stretch. This is not correct, since neither Salman et al. nor Farrington et al. describe the Void Volume values claimed by Appellants. With regard to the geometric mean stretch, it is asserted that one of ordinary skill in the art would have recognized that the geometric mean stretch claimed by Appellants would be readily determined. Appellants agree with this statement, although it is not clear how this forms a basis for rejection. All of Appellants' claimed properties can be readily measured by one of ordinary skill in the art. The rejection further asserts that it would have been obvious for one of ordinary skill in the art to have provided the claimed geometric mean stretch values in order to provide high bulk and low stiffness. Appellants do not follow this reasoning. Neither Salman et al. nor Farrington et al. equate Appellants' claimed geometric mean stretch values with high bulk and low stiffness. If one of ordinary skill wished to increase the bulk and lower the stiffness of the tissue sheets of Salman et al., there is nothing in Farrington et al. to suggest that Appellants' claimed range of geometric mean stretch values would accomplish that objective.

In connection with the foregoing basis for rejection, it is stated that where general conditions of a claim are disclosed in the prior art, discovering the optimum workable ranges or the optimum value of a result effective variable involves only routine skill in the art. While this is true, there must also be some recognized motivation to optimize. In Appellants' case, there is no teaching or suggestion in the prior art that Appellants' claimed combination of properties or variables (geometric mean stretch, single sheet caliper and Void Volume) should be "optimized" to within the claimed ranges. Obviously, all of these properties are known to those skilled in the art but, prior to Appellants' invention, it was not appreciated that bath tissue having a geometric mean stretch of about 11% or less, a single sheet caliper of about 0.01 inch or less and a Void Volume of about 8.0 grams or greater per gram of tissue was a desirable combination of properties. Appellants have found that achieving this combination of properties by properly calendering a basesheet with the necessary Void Volume to reduce caliper and stretch produces a soft tissue with good absorbent capacity that can be wound into a roll having a high sheet count. This is not suggested by the cited prior art and therefore is believed to be patentable.

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Further in regard to this point, the Final Rejection references Farrington et al. at col. 8, lines 30-50 in support for the suggestion that it would be obvious to optimize the geometric mean stretch to the values claimed by Appellants. While Farrington et al. does seek to provide high machine direction stretch by using rush transfer and high cross-machine direction stretch by using three-dimensional throughdryng fabrics, the three-dimensional throughdryng fabrics necessary to achieve high cross-machine direction stretch in Farrington et al. also result in tissue sheets with very high bulk (high caliper). This is inconsistent with Appellants' claims reciting low caliper. Also, one of ordinary skill in the art would not seek to provide the tissue sheet of Salman et al. with high geometric mean stretch because high stretch in the sheet would be expected to make the attainment of embossing clarity more difficult, since the web would be more resilient and less likely to maintain the shape of the embossing elements. This would be counter to the purpose of the Salman et al. process.

Conclusion

For the reasons stated above, it is Appellants' position that the basis for rejection of claims is not proper and should be **reversed** by the Board.

Please charge the \$500.00 fee (fee code 1402), pursuant to 37 C.F.R. 41.20(b)(2), for filing this Appeal Brief to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875. Any additional prosecutorial fees which are due may also be charged to deposit account number 11-0875.

The undersigned may be reached at: (920) 721-3616.

Respectfully submitted,

MICHAEL JOHN SMITH ET AL.

By: 

Gregory E. Croft

Registration No.: 27,542

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CERTIFICATE OF TRANSMISSION

I, Judy Garot, hereby certify that on April 28, 2005 this Appeal Brief is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) 872-9306.

Typed or printed name of person signing this certificate:

Judy Garot

Signature:

Judy Garot

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Appendix – The Claims On Appeal

The claims on appeal are:

1. (Original) A roll of bath tissue comprising a wound continuous tissue basesheet having spaced-apart transverse lines of perforations which define individual tissue sheets for detachment in use, said tissue basesheet having a geometric mean stretch of about 11% or less, a single sheet caliper of about 0.01 inch or less, and a Void Volume of about 8.0 grams or greater per gram of tissue.
2. (Original) The roll of bath tissue of claim 1 having from about 600 to about 800 individual sheets per roll.
3. (Original) The roll of bath tissue of claim 1 having from about 650 to about 750 individual sheets per roll.
4. (Original) The roll of bath tissue of claim 1 having from about 600 to about 750 individual sheets per roll.
5. (Original) The roll of bath tissue of claim 1 having from about 650 to about 800 individual sheets per roll.
6. (Original) The roll of bath tissue of claim 1 wherein the tissue basesheet has a Void Volume of about 10.0 or greater.
7. (Original) The roll of bath tissue of claim 1 wherein the tissue basesheet has a Void Volume of from about 8.0 to about 11 grams per gram.
8. (Original) The roll of bath tissue of claim 1 wherein the tissue basesheet has a geometric mean stretch of about 10% or less.
9. (Original) The roll of bath tissue of claim 1 wherein the tissue basesheet has a geometric mean stretch of from about 7 to about 10%.

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10. (Original) The roll of bath tissue of claim 1 wherein the tissue basesheet has a caliper of 0.0095 inch or less.

11. (Original) The roll of bath tissue of claim 1 wherein the tissue basesheet has a caliper of from about 0.007 to about 0.01 inch.

12. (Previously Presented) A roll of bath tissue comprising a wound continuous single-ply, throughdried tissue basesheet having spaced-apart transverse lines of perforations which define individual tissue sheets for detachment in use, said single-ply tissue basesheet having a geometric mean stretch of about 11% or less, a single sheet caliper of about 0.01 inch or less, and a Void Volume of about 8.0 grams or greater per gram of tissue.

13. (New) The roll of bath tissue of claim 12 having from about 600 to about 800 individual sheets per roll.

14. (New) The roll of bath tissue of claim 12 having from about 650 to about 750 individual sheets per roll.

15. (New) The roll of bath tissue of claim 12 having from about 600 to about 750 individual sheets per roll.

16. (New) The roll of bath tissue of claim 12 having from about 650 to about 800 individual sheets per roll.

17. (New) The roll of bath tissue of claim 1 wherein the tissue basesheet has a Void Volume of about 10.0 or greater.

18. (New) The roll of bath tissue of claim 12 wherein the tissue basesheet has a Void Volume of from about 8.0 to about 11 grams per gram.

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19. (New) The roll of bath tissue of claim 12 wherein the tissue basesheet has a geometric mean stretch of about 10% or less.

20. (New) The roll of bath tissue of claim 12 wherein the tissue basesheet has a geometric mean stretch of from about 7 to about 10%.

21. (New) The roll of bath tissue of claim 12 wherein the tissue basesheet has a caliper of 0.0095 inch or less.

22. (New) The roll of bath tissue of claim 12 wherein the tissue basesheet has a caliper of from about 0.007 to about 0.01 inch.

23. (New) A roll of bath tissue comprising a wound continuous single-ply, uncreped throughdried tissue basesheet having spaced-apart transverse lines of perforations which define individual tissue sheets for detachment in use, said single-ply, uncreped throughdried tissue basesheet having a geometric mean stretch of about 11% or less, a single sheet caliper of about 0.01 inch or less, and a Void Volume of about 8.0 grams or greater per gram of tissue.

24. (New) The roll of bath tissue of claim 23 having from about 600 to about 800 individual sheets per roll.

25. (New) The roll of bath tissue of claim 23 having from about 650 to about 750 individual sheets per roll.

26. (New) The roll of bath tissue of claim 23 having from about 600 to about 750 individual sheets per roll.

27. (New) The roll of bath tissue of claim 23 having from about 650 to about 800 individual sheets per roll.

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28. (New) The roll of bath tissue of claim 23 wherein the tissue basesheet has a Void Volume of about 10.0 or greater.

29. (New) The roll of bath tissue of claim 23 wherein the tissue basesheet has a Void Volume of from about 8.0 to about 11 grams per gram.

30. (New) The roll of bath tissue of claim 23 wherein the tissue basesheet has a geometric mean stretch of about 10% or less.

31. (New) The roll of bath tissue of claim 23 wherein the tissue basesheet has a geometric mean stretch of from about 7 to about 10%.

32. (New) The roll of bath tissue of claim 23 wherein the tissue basesheet has a caliper of 0.0095 inch or less.

33. (New) The roll of bath tissue of claim 23 wherein the tissue basesheet has a caliper of from about 0.007 to about 0.01 inch.